



Fact sheet 5

Using predation control to increase wild grey partridge numbers

All farmland birds are subject to losses by predators. Ground-nesting species like the grey partridge seem especially vulnerable because they are susceptible to a greater range of predators than those that nest above the ground, in trees or around buildings. To provide suitable safe nest sites and sufficient food resources, habitat

management is a key element in producing more partridges, but the reduction in losses to predators can also greatly increase their numbers.

Predation is most important and causes the largest losses when hens are nesting. Incubating hens and their eggs are especially vulnerable during this period.

The Game & Wildlife Conservation Trust

For over 75 years our scientists have been researching why species like the grey partridge, water vole, corn bunting and black grouse have declined. We are continually developing practical measures to reverse these declines.

Our aim is simple - a thriving countryside rich in game and other wildlife.

We are an independent charity reliant on voluntary donations and the support of people who care about the survival of our natural heritage.

The scientific background to predator control

Over more than 30 years, the Game & Wildlife Conservation Trust's work on the Sussex study area revealed the importance of predator control, where nest losses to predators were monitored over decades on farms with and without keeping.

Then, during the 1980s, we conducted a controlled scientific experiment where we compared grey partridge population dynamics on similar areas of farmland that were and were not kept. Over eight years on Salisbury Plain we showed that predator control:

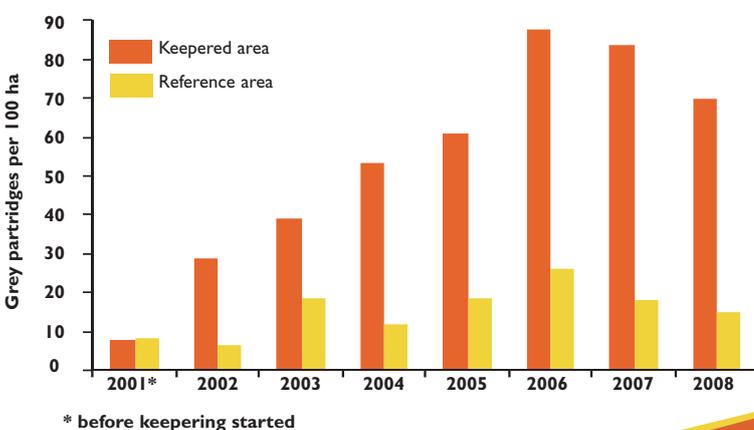
- Increased the production of young birds.
- Increased numbers in August by 75% each year.
- Resulted, over three years, in a 3.5-fold increase in autumn populations.
- Increased breeding stock in spring by 35% each year.
- Resulted, over three years, in a 2.6-fold increase in breeding density.

In our current demonstration project at Royston, the effects of keeping and predator control are clear (see Figure 1).

Why should you read this fact sheet?

This series of fact sheets explains how to restore grey partridges on your farm, based on the results of our practical research. Restoring these birds on farmland will help us to achieve Biodiversity Action Plan (BAP) targets for this and other BAP species, including other ground-nesting birds and rare arable wildflowers. It will also allow you to achieve the best out of your wild gamebirds.

Figure 1. Grey partridges at Royston in autumn



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Principles of predator control

Predator control can be expensive and time-consuming. Therefore, if predators are to be removed, you must ensure that the effort is effective and legal. Before starting out on a predator control programme you should consider the following principles:

1. Only species that are allowed legally to be taken should be killed.
2. Protected species must not be targeted.
3. Only legally approved methods should be employed.
4. The objective is not to eliminate every

- predator. Your aim should be to reduce predator pressure during the crucial nesting and chick-rearing seasons to allow birds to breed more successfully.
5. Even on the best kept land, birds are lost to predation, both by protected species (badgers and sparrowhawks) and by common species (foxes and crows). On our demonstration farm at Loddington, in Leicestershire, where we achieved a wild gamebird to the acre during the period when our keeper was following

- these principles, we still lost 40% of our sitting hens to predators. The point is that without the keeper this rate of loss would have been more than 80%.
6. Our research has shown that predator control can be specifically targeted to the breeding period. A pair that has lost its first clutch will re-nest, so this period is from April to harvest time. Predator control should therefore be focused from late February to mid-July.

Main predators

Many different predators take hens sitting on the nest, eggs or both. Full details and advice about how to implement a predator control programme on your farm or estate are available from the Game & Wildlife Conservation Trust's Advisory Service (see box below). Some key points are as follows:

Foxes: The fox is the major predator of sitting hens. Foxes can be controlled by lamping and snaring from February to July. Our Advisory Service also run a one-day fox snaring course.

Corvids (crows, magpies, etc) - egg and chick predators: These are best controlled using specialist traps designed for and perfected to catch corvids during the breeding season, eg the Larsen trap. Our free fact sheet entitled *Hints for using Larsen traps* describes best practice.

Mink: Using the GWCT Mink Raft on ponds and watercourses is an excellent and effective way to remove mink. Guidelines for its manufacture and use are available from our website www.gwct.org.uk

Smaller ground predators (stoats, rats etc): A system of tunnel traps along all hedges and nesting cover around the farm will ensure that these species are controlled.

Protected species: A recent study has shown that of all the raptors, the sparrowhawk was the most important predator of grey partridges, inflicting most kills on adults in February/March when the pairs are formed. Rates of loss were about 17%, (although this can be substantially higher), but were less important when breeding densities of partridges were high (more than five pairs per 100 hectares).

The use of cover crops, strategically planted around the farm (see Fact sheets 2 and 4) can provide escape cover in early spring and help reduce losses during this vulnerable time.

We have little up-to-date information about the effect of badgers on nesting partridges, but we have been able to produce good densities of partridges when badgers were present. We can tolerate some predation from badgers but we do not know whether the densities of badgers on our study areas where we produced partridges, are high or low.



More information

Further details on predator control are available in our Green Guide. We can also supply plans and springs for the manufacture and use of Larsen Traps. For more details please ring 01425 652381.

For further advice on predator control please contact the Advisory Service on 01425 651013.

